APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,297	12/01/2000	Jonathan Yen	10004274-1	4931

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER
ABDI, KAMBIZ

ART UNIT	PAPER NUMBER
3621	

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/728,297	YEN ET AL.
	Examiner	**Art Unit**	
	Kambiz Abdi	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 December 2000</u> .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-20 have been examined.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 10 and 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as their invention.

3.   As for claims 10 and 11are directed to non-limiting language in the inventive steps. Neither of the claims states what the upper, lower, or any type of limitation on the resolution to be chosen for prevention of the indicia to be copied by a reproduction system.

4.   Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. The applicant fails to point out distinctly and concisely to what the claim is referring by "a resolution selected based at least in part upon how the payment indicium is rendered on the printing surface". It is not clear to the examiner what the applicant is referring to as "how the payment indicium is rendered on the printing surface".

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6.   Claims 1, 8, 9, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,175,827 to

Robert A. Cordery et al.   .

2.   As per claims 1, 8, and 9, Cordery clearly discloses method and system of generating and

extracting a payment indicium, comprising:

- generating a corroborative digital token from payment information (See Cordery abstract,

  figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines

  11-68, and column 9, linea 40-51);

- decoding the extracted digital token to produce a decoded message (See Cordery abstract,

  figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines

  11-68, and column 9, linea 40-51);

- extracting from the decoded message payment information encoded in the payment indicium

  (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines

  1-40, column 7, lines 11-68, and column 9, linea 40-51);

- modulating a base image with a graphical encoding of the corroborative digital token to

  produce a payment indicium (See Cordery abstract, figures 2-7 and associated text, column

  5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, and column 9, linea 40-51);and

- extracting a digital token from a payment indicium based upon a comparison of the payment

  indicium and a base image (See Cordery abstract, figures 2-7 and associated text, column 5,

  lines 60-68, column 6, lines 1-40, column 7, lines 11-68, and column 9, linea 40-51);

- encoding payment information into a corroborative digital token based at least in part upon

  one or more variable encoding parameters (See Cordery abstract, figures 2-7 and associated

  text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51,

  column 12 lines 1-60, and column 14, lines 28-60).; and

- rendering a payment indicium containing the encoded payment information (See Cordery

  abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column

  7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60).

As per claims 2-4, and 6, Cordery clearly disclose all the limitations of claim 1, further;

Cordery discloses,

- the payment information from which the corroborative digital token is generated includes an indication of payment amount (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60).

- the payment information from which the corroborative digital token is generated includes postal data (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60)..

- the postal data includes destination address information (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60). (Further, this claim appears to be non-functional since the postal data is just address information and wherein the address information is not acted upon in any way).

the corroborative digital token is generated from a cryptographic transformation of the payment information (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60).

Claim Rejections – 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, 7, and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.

6,175,827 to Robert A. Cordery et al. in view of U.S. Patent No. 5,706,099 to Douglas N. Curry.

4.   As per claims 5 and 7, Cordery clearly teachs all the limitations of claim1, further,

What Cordery is not clear on is the method of using the half-tone image encoding,

- base image includes a user selected image (See Curry abstract, figure 1 and associated texts,

  column 1, lines 12-49, column 2, lines 41-50, column 3, lines 13-57, and column 4, lines 24-68).

- base image is modulated based upon a half-tone encoding process (See Curry abstract, figure

  1 and associated texts, column 1, lines 12-49, column 2, lines 41-50, column 3, lines 13-57, and

  column 4, lines 24-68).

However, Curry clearly discloses that a halftone image can be used to be carrier of the obfuscated token

information instead of the 2D barcodes traditionally used as the carrier of token information along with

other indicium information (See Curry abstract, figure 1 and associated texts, column 1, lines 12-49,

column 2, lines 41-50, column 4, lines 24-68). Therefore, it would have been obvious to one having

ordinary skill in the art at the time the current invention was made to use the teachings of Curry to take

advantage of visual enhancements that the functional usefulness of the human perceptive half-tone

images have, along with digital data that can be embedded and read by a machine within the half-tone

image.

7.   As per claims 10-14, Cordery discloses a method of generating a payment indicium,

comprising:

rendering a payment indicium containing embedded payment information on a printing surface (See

Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40,

column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60).

What Cordery is not explicit is a printing characteristic that degrades with photographic reproductions

such that the embedded payment information is extractable from an original rendering of the payment

indicium but is un-extractable from a photographic reproduction of an original rendering of the

payment indicium. However, Curry clearly teaches that using different resolution printing does affect the quality and clarity of the reproduced copy of the halftone image. Additionally, it is well known in the art that the higher the density of original halftone image the harder it would be to reproduce the image with the watermark intact. As well as copying a halftone image does depend on the original resolution of the image being copied as it is clear as technology changes the copying system have been improved to replicated a higher degree of resolution. Therefore, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to use a higher density resolution image for printing the indicia on the mailing piece for better security as for prevention of copy reproduction.

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,175,827 to Robert A. Cordery et al. in view of U.S. Patent No. 5,710,814 to Keith Klemba et al.

As per claims 16-20, Cordery clearly discloses all the limitations of claim 15, further, Cordery discloses that,

- one or more of the encoding parameters vary with payment value, an encoding security level parameter varies with payment value, an encoding robustness parameter varies with payment value, an error correction code redundancy parameter varies with payment value (See Cordery abstract, figures 2-7 and associated text, column 5, lines 60-68, column 6, lines 1-40, column 7, lines 11-68, column 9, line 40-51, column 12 lines 1-60, and column 14, lines 28-60).

What Cordery is not clear on is an encoding private key bit length parameter varies with payment value. It is clear that as the count and amount of the registers change the token is changing as well that is a bases of creation of none-similar tokens in the postage meter systems. However, the use of variable length encryption is an obvious design choice, it is clear that higher security levels require higher value assets. This is truer for monetary asset indicators. It is clear that the higher the value of the asset particularly monetary assets the higher the bit length of the encryption. As it is clear by Klemba (See Klemba column 7, lines 63-68 and column 8, lines 1-15). In addition it is

clear that using the higher bit length requires a higher resource to encrypt and decrypt an asset.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the current

invention was made to use the variable bit length encryption based on the value of the asset that is being

encrypted and save on usage of resources.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

   U.S. Patent No. 6311214, to Geoffery B. Roads, Linking of Computers Based on Optical Sensing of

   Digital Data.

   U.S. Patent No. 6427021, to Meredith B. Fischer, Recording Graphical and Tracking Information on

   The Face of A Mail piece.

   U.S. Patent No. 5315098, to Robert F. Tow, Methods and Means for Embedding Machine Readable

   Digital Data in Halftone Images.

   U.S. Patent No.6064764, to Vasudev Bhaskaran, Fragile Water markers for Detecting Tampering in

   Images.

6.   Examiner has pointed out particular references contained in the prior arts of record in the body

of this action for the convenience of the applicant. Although the specified citations are representative of

the teachings in the art and are applied to the specific limitations within the individual claim, other

passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the

response, to consider fully the entire references as potentially teaching all or part of the claimed

invention, as well as the context of the passage as taught by the prior arts or disclosed by the

examiner.

7.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Kambiz Abdi whose telephone number is (703) 305-3364. The examiner can normally

be reached on 9:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

James P. Trammell can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be

directed to the Receptionist whose telephone number is (703)308-1113.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-7687 [Official communications; including After Final communications labeled "Box AF"]

(703) 746-7749 [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to:

Crystal Park 5, 2451 Crystal Drive
7th floor receptionist, Arlington, VA, 22202

Abdi/K
February 3, 2003

JOHN HAYES

John W. Hayes

PRIMARY EXAMINER